

## REMARKS

### **I. Introduction**

Claims 10, 11, and 13 to 20 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

### **II. Rejection of Claims 10, 11, and 13 to 20 Under 35 U.S.C. § 102(b)**

Claims 10, 11, and 13 to 20 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,144,534 ("Xue et al."). It is respectfully submitted that Xue et al. do not anticipate the present claims for at least the following reasons.

It is "well settled that the burden of establishing a prima facie case of anticipation resides with the [United States] Patent and Trademark Office." *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1788 to 1789 (Bd. Pat. App. & Inter. 1986). To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of Calif.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

Claim 10 relates to a magnetoresistive layer system in an environment of a magnetoresistive layer stack. Claim 10, as amended herein without prejudice, recites that the layer system includes a layer array, including at least one hard magnetic layer and at least one soft magnetic layer, situated on and/or below a magnetoresistive region of the magnetoresistive layer stack, wherein the magnetoresistive layer stack works substantially on the basis of one of a GMR effect and an AMR effect. Claim 19 has been amended herein without prejudice in analogous manner. Support for the amendments made to claims 10 and 19 may be found, for example, at Figure 2. No new matter has been added.

Xue et al. do not disclose, or even suggest, a layer system wherein a layer array, including at least one hard magnetic layer and at least one soft magnetic layer, is situated on and/or below a magnetoresistive region of magnetoresistive

**stack**. Xue et al. disclose, referring to Figure 2, a magnetoresistive region 66 that is situated **next to, not on or below**, hard magnets 58 and 60. In this regard, it should be noted that, as mentioned by Xue et al. at col. 4 lines 16 to 28, the **outer regions 62 and 64 of element 52 are not magnetoresistive due to hard biasing**.

Furthermore, applicants disagree with the Examiner's contention that Xue et al. disclose a magnetoresistive layer stack. In this regard, the Examiner points to col. 3, lines 64 to 67 of Xue et al., which states that "the MR sensor 28 is typically fabricated on a substrate (not shown) with layers of a write transducer (not shown) situated next to the MR sensor 28 and separated from the MR sensor 28 by at least one shield layer. The fact that these additional layers are separated from the MR sensor by at least one shield layer makes clear that they are not meant to contribute to or have any effect on the magnetoresistive properties of the magnetoresistive layer. Moreover, the cited language -- e.g., "separated from the MR sensor . . ." -- indicates that the additional layers are **not part of the MR sensor**. As such, even if these layers are adjacent to the active region of MR element 52 they do not constitute a **magnetoresistive layer stack**. The additional citation from Xue et al. relied on by the Examiner also fails to disclose this feature. In this regard, Xue et al. state at col. 7, lines 62 to 63 that "[a]dditional layers (not shown) may also be used as **part of the hard magnet structure**." (emphasis added).

As such, it is respectfully submitted that Xue et al. do not anticipate claims 10 and 19.

As for claims 11 and 13 to 18, which ultimately depend from claim 10 and therefore include all of the features recited in claim 10, it is respectfully submitted that Xue et al. do not anticipate these dependent claims for at least the same reasons more fully set forth above in support of the patentability of claim 10.

As for claim 20, which ultimately depends from claim 19 and therefore includes all of the features recited in claim 19, it is respectfully submitted that Xue et al. do not anticipate this dependent claim for at least the same reasons more fully set forth above in support of the patentability of claim 19.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

III. Conclusion

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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